



The Climate Registry

Carbon Management 101: Put Your Registry Data into Action

Office Based Organizations



November 17, 2011



The Climate Registry

What We'll Cover

- The Climate Registry
- Why reduce?
- Creating a carbon management plan
- Putting the plan into action
- Leading by example
 - **3 Degrees:** Steve McDougal, Vice President, Marketing and Business Development
 - **Healthy Buildings:** Lena Ohta, Sustainability Advisor
- Q&A



The Climate Registry

Who We Are

- The Registry is a non-profit organization governed by states, provinces and tribes in North America
- The Registry is a policy neutral, non-advocacy organization
- The Registry is a membership organization with over 430 members from business, government, NGOs and academia





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What We Do

- Provide high quality resources, training and hands-on, personalized help to organizations measuring and managing their carbon footprints
- Ensure members receive informative and timely policy updates
- Create a community of leaders to share best practices
- Recognize and highlight Members through our Climate Registered program and in our communication vehicles, webinars and events
- Partner with EPA on the new Climate Leadership Awards
- Maintain a GHG emissions registry



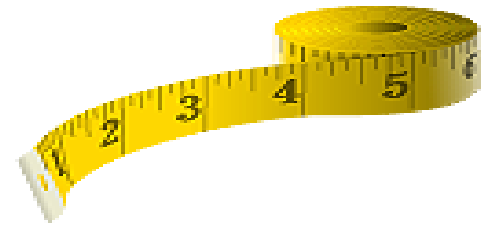


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Carbon Management

‘Measure, Reduce, Offset’

- **Measure:** take inventory, establish a baseline, and document annual reduction activity – carbon footprinting
- **Reduce:** use less energy (fossil fuels) through energy efficiency and conservation and by investing in renewables
- **Offset:** purchase quality carbon credits to offset remaining carbon output





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Why manage your carbon footprint?

Increase operational & energy efficiency

Brand & reputation

Demonstrate leadership

Corporate community

Corporate social responsibility

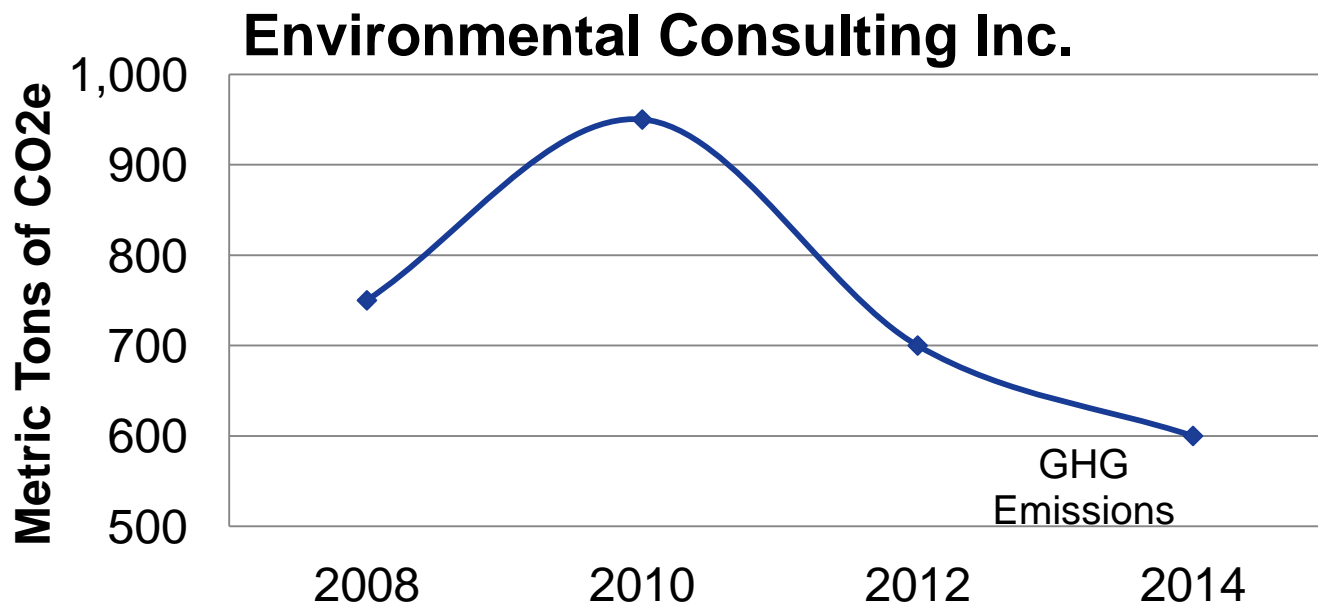
CARBON FOOTPRINT



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Carbon Management Plan

- Set a base year
- Analyze carbon footprint (CRIS report) & identify opportunities for reductions
- Determine reduction goal & timeline
- Implement reduction strategies
- Evaluate & communicate results





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Use your CRIS Report

- Set a base year
- Identify largest sources
- Compare facilities
- Compare emissions over time

Operational Control: North America					
DIRECT EMISSIONS (metric tons)	CO ₂ e	CO ₂	CH ₄	N ₂ O	HFCs (CO ₂ e)
Stationary Combustion - Scope 1	69.90014	69.7213	0.00658	0.00013	0
Mobile Combustion - Scope 1	64.60591	64.49196	0.00024	0.00035	0
Process - Scope 1	0	0	0	0	0
Fugitive - Scope 1	14.8012	0	0	0	14.8012
TOTAL DIRECT EMISSIONS	149.30725	134.21326	0.00682	0.00048	14.8012
INDIRECT EMISSIONS (metric tons)	CO ₂ e	CO ₂	CH ₄	N ₂ O	HFCs (CO ₂ e)
Purchased Electricity - Scope 2	216.70054	215.89975	0.00897	0.00198	0
Purchased Heating - Scope 2	0	0	0	0	0
Purchased Cooling - Scope 2	0	0	0	0	0
Purchased Steam - Scope 2	0	0	0	0	0
TOTAL INDIRECT EMISSIONS	216.70054	215.89975	0.00897	0.00198	0



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Analyze your CRIS Report: Identify Largest Sources



Source: Trihydro (2010)

OPERATIONAL CONTROL EMISSIONS: North America

DIRECT EMISSIONS (Scope 1) Metric Tons	CO ₂ e	CO ₂	CH ₄	N ₂ O	HFCs	PFCs	SF ₆
Stationary Combustion	69	69	0.00117	0.00117	N/A	N/A	N/A
Mobile Combustion	491	488	0.01163	0.00951	N/A	N/A	N/A
North America Fleet: Vehicles	491	488	0.01163	0.00951	N/A	N/A	N/A
Process Emissions	0	0	0.00000	0.00000	0.00000	0.00000	0.00000
Fugitive Emissions	1	0	0.00000	0.00000	1.47000	0.00000	0.00000
TOTAL DIRECT EMISSIONS	562	557	0.01280	0.01068	1.47000	0.00000	0.00000

Indirect Emissions (metric tons)	CO ₂ e	CO ₂	CH ₄	N ₂ O
Facility-Level Totals	0	0	0.00000	0.00000
Purchased Electricity	332	330	0.00750	0.00531
Purchased Heating	0	0	0.00000	0.00000
Purchased Cooling	0	0	0.00000	0.00000
Purchased Steam	0	0	0.00000	0.00000
TOTAL INDIRECT EMISSIONS	332	330	0.00750	0.00531



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Analyze your CRIS Report: Compare Facilities



Source: Trihydro (2010)

TOTAL EMISSIONS: Signal Hill (CA) Office

Does the Entity control the Facility's emissions? Yes

Equity Share (%) N/A

DIRECT EMISSIONS (Scope 1) Metric Tons	CO2e	CO2	CH4	N2O
Stationary Combustion	0	0	0.00000	0.00000
Mobile Combustion	0	0	0.00000	0.00000
Process Emissions	0	0	0.00000	0.00000
Fugitive Emissions	0	0	0.00000	0.00000
TOTAL DIRECT EMISSIONS	0	0	0.00000	0.00000

Indirect Emissions (metric tons)	CO2e	CO2	CH4	N2O
Facility-Level Totals	0	0	0.00000	0.00000
Purchased Electricity	7	7	0.00028	0.00008
Purchased Heating	0	0	0.00000	0.00000
Purchased Cooling	0	0	0.00000	0.00000
Purchased Steam	0	0	0.00000	0.00000
TOTAL INDIRECT EMISSIONS	7	7	0.00028	0.00008

Signal Hill Office

TOTAL EMISSIONS: Casper Office

Does the Entity control the Facility's emissions? Yes

Equity Share (%) N/A

DIRECT EMISSIONS (Scope 1) Metric Tons	CO2e	CO2	CH4	N2O
Stationary Combustion	0	0	0.00000	0.00000
Mobile Combustion	0	0	0.00000	0.00000
Process Emissions	0	0	0.00000	0.00000
Fugitive Emissions	0	0	0.00000	0.00000
TOTAL DIRECT EMISSIONS	0	0	0.00000	0.00000

Indirect Emissions (metric tons)	CO2e	CO2	CH4	N2O
Facility-Level Totals	0	0	0.00000	0.00000
Purchased Electricity	38	38	0.00080	0.00067
Purchased Heating	0	0	0.00000	0.00000
Purchased Cooling	0	0	0.00000	0.00000
Purchased Steam	0	0	0.00000	0.00000
TOTAL INDIRECT EMISSIONS	38	38	0.00080	0.00067

Casper Office



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Analyze your CRIS Report: Compare Emissions over Time

Emissions Year 2008

DIRECT EMISSIONS (Scope 1) Metric Tons	CO2e	CO2	CH4	N2O	HFCs
Stationary Combustion	69	69	0.00117	0.00117	N/A
Mobile Combustion	491	488	0.01163	0.00951	N/A
North America Fleet: Vehicles	491	488	0.01163	0.00951	N/A
Process Emissions	0	0	0.00000	0.00000	0.00000
Fugitive Emissions	1	0	0.00000	0.00000	1.47000
TOTAL DIRECT EMISSIONS	562	557	0.01280	0.01068	1.47000

Indirect Emissions (metric tons)	CO2e	CO2	CH4	N2O
Facility-Level Totals	0	0	0.00000	0.00000
Purchased Electricity	332	330	0.00750	0.00531
Purchased Heating	0	0	0.00000	0.00000
Purchased Cooling	0	0	0.00000	0.00000
Purchased Steam	0	0	0.00000	0.00000
TOTAL INDIRECT EMISSIONS	332	330	0.00750	0.00531



Trihydro

Source: Trihydro (2010)

Emissions Year 2009

DIRECT EMISSIONS (metric tons)	CO2e	CO2	CH4	N2O	HFCs (CO2e)
Stationary Combustion - Scope 1	85.96364	85.76553	0.00728	0.00014	0
Mobile Combustion - Scope 1	628.87	625.35	0.02	0.01	0
Process - Scope 1	0	0	0	0	0
Fugitive - Scope 1	1.473	0	0	0	1.473
TOTAL DIRECT EMISSIONS	716.30684	711.11553	0.02728	0.01014	1.473

INDIRECT EMISSIONS (metric tons)	CO2e	CO2	CH4	N2O	HFCs (CO2e)
Purchased Electricity - Scope 2	358.15077	356.20588	0.00797	0.00572	0
Purchased Heating - Scope 2	0	0	0	0	0
Purchased Cooling - Scope 2	0	0	0	0	0
Purchased Steam - Scope 2	0	0	0	0	0
TOTAL INDIRECT EMISSIONS	358.15077	356.20588	0.00797	0.00572	0



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Set a Reduction Goal

- Includes:
 - Base year
 - Greenhouse gas reduction target
 - Absolute target is best!
 - Interim milestones





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Absolute vs. Intensity Targets

- Absolute—reductions relative to a baseline
 - Essential in reaching global targets
 - Ex. Reduce 5 million mtCO₂e in 5 years
- Intensity—reductions relative to productivity or economic output
 - Hedge against rising emissions through business growth
 - Ex. 10% reduction per widget in 5 years



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Registry Member GHG Reduction Goal



“In the short-term, we aim to reduce our absolute GHG emissions by 10% in 2010 by addressing our business activities that most significantly impact our footprint and that we have direct control over.”

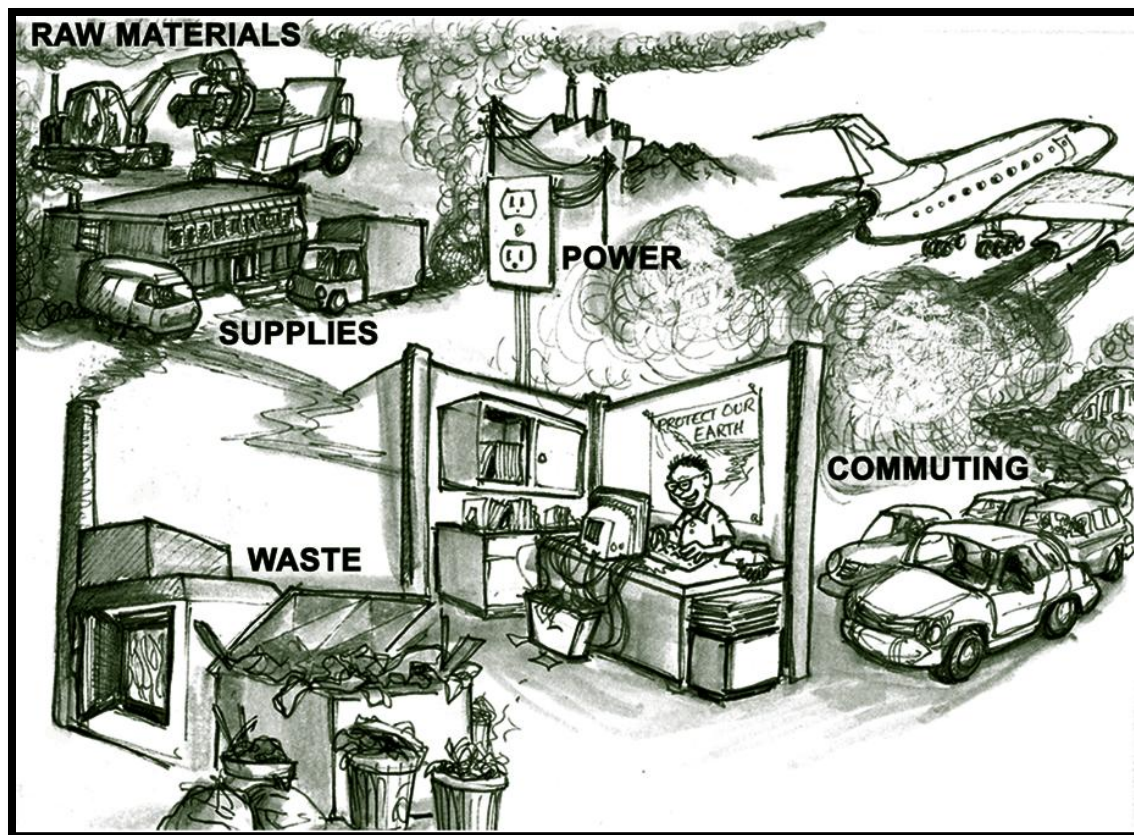
*-Sustainable Business Consulting
Climate Action at SBC*



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Make a Plan to Reduce

- Technology
- Purchasing Policies
- Behavior
- Offsets



Source: WRI (2002)



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Reduction Strategies: Technology

- Use less energy & automate (scope 2)
 - Office equipment, computers, lighting
- Upgrade technology (scope 1)
 - Refrigerators, air conditioners, boilers



Source: The Climate Registry (2011); WRI (2002)



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Reduction Strategies: Technology

- Take advantage of incentives
 - DSIRE
 - Cool Planet—The Registry's energy efficiency program
 - ESCOs





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Reduction Strategies: Purchasing Policies

- Adopt green purchasing policies (scope 3)
 - Office products
 - Green power purchases
- Look for trusted green labels—FSC, recycled content, EPA Energy Star





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Reduction Strategies: Behavior

- Transportation (scope 3)
 - ❑ Business travel
 - ❑ Employee commuting
 - ❑ Working remotely





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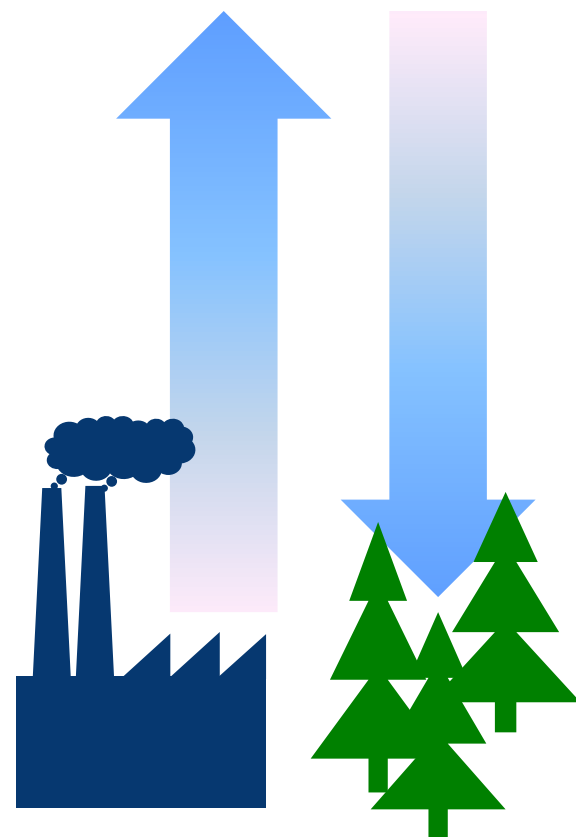
Reduction Strategies: Offsets

- 1 carbon credit = 1 mtCO₂e
- Quality offsets are essential



The Gold Standard
Premium quality carbon credits

- 49%--threshold for offsets to achieve Climate Registered™ Platinum Status





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Anticipate Challenges

- Access to exact energy use data
 - Is your electricity metered separately?





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Make it Stick



SBC's Employee Commuting Incentive Schedule

Points (Round Trip = 1 point)	Rewards
46	\$25 gift certificate
92	\$400
138	\$750 worth of travel expenses
160	Plane ticket to Hawaii

Source: Sustainable Business Consulting (2011)

- Secure lasting organizational commitment
- Involve employees & incentivize
- Make sustainability part of your organizational DNA

Source: The Climate Registry (2011)



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Evaluate & Communicate Your Results

- Evaluate your reduction goal & strategies
- Share the good news with your employees; get the word out to stakeholders & clients
 - Annual sustainability report
 - Use The Climate Registry logo



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Source: WRI (2002)



Trihydro 2010 Sustainability Report Greenhouse Gas Emissions

In May 2008, Trihydro became a founding member of The Climate Registry (TCR) to demonstrate stewardship on issues related to climate change. In doing so, Trihydro resolved to inventory the greenhouse gas (GHG) emissions associated with our operations nationwide. As a reporting member of TCR, Trihydro's internal GHG inventory must be verified annually by a third party to ensure its accuracy for comparison among similar industry members.

Source: Trihydro (2010)



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Be Recognized for Managing Your Carbon Footprint!

■ Climate Registered™



Platinum

Reduce emissions by 20%,
maintain reduction



Gold

Reduce emissions by 5%,
retain reductions for 3 years



Silver

Publish a carbon management
plan and reduction goal,
demonstrate best practices

■ Climate Leadership Awards



■ The Climate Pages

The Climate Pages
directory



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Carbon Management Toolkit

■ Getting organized

- ❑ [The Climate Registry's Five Step Action Plan for Reducing Your GHG Emissions](#)
- ❑ [WRI's Working 9 to 5 on Climate Change: an Office Guide](#)
- ❑ [EPA's Climate Change, What You Can Do: At the Office](#)
- ❑ [Chicago Green Office Challenge](#)

■ Finding financing

- ❑ [Database for State Incentives for Renewables & Efficiency \(DSIRE\)](#)
- ❑ [National Association of Energy Service Companies \(NAESCO\)](#)

■ Training

- ❑ [Reporting to The Registry: an orientation for staff \(customizable PowerPoint\)](#)



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Bringing Climate Solutions Down To Earth

Steve McDougal

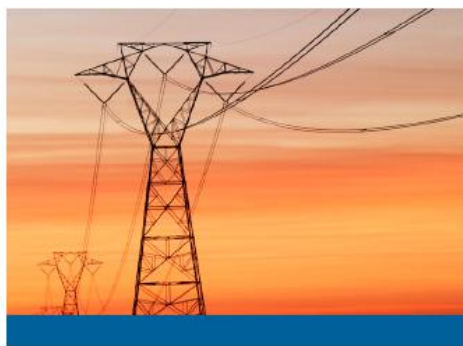
Vice President, Marketing &
Business Development



3Degrees' co-founder and vice president of marketing and business development, Steve leads the firm's Green Power and Carbon Balancing Services group and supervises its marketing efforts across the U.S.

Steve also serves as 3Degrees' green power and carbon balancing champion, educating audiences ranging from participants in the Chicago Green Power Challenge, LEED green building professionals, and members of the National Association for Environmental Management (NAEM) on the value of RECs and carbon offsets.

A native of Chicago, Steve has a B.A. in Political Science and Economics from Colorado College and an M.B.A. from the Kellogg Graduate School of Management at Northwestern University.



3Degrees Emissions Reduction Plan

November 17, 2011

3Degrees Mission

To mitigate the impact of climate change by accelerating the low-carbon, renewable energy economy.

3Degrees' intelligence, efficiency, and reliability enable its partners to utilize environmental markets to build stakeholder value.



About 3Degrees

3Degrees helps organizations use Renewable Energy Certificates (RECs) and verified carbon offsets to reduce the environmental impact of their operations and encourage development of new renewable energy and carbon emission reduction projects.

Who we work with

- Utilities, Fortune 500 organizations, governmental agencies, nonprofits, renewable energy and project owners
- Starbucks, Safeway, Whole Foods, Adobe, Northwestern University, the Environmental Defense Fund and many more

Recognition and Honors

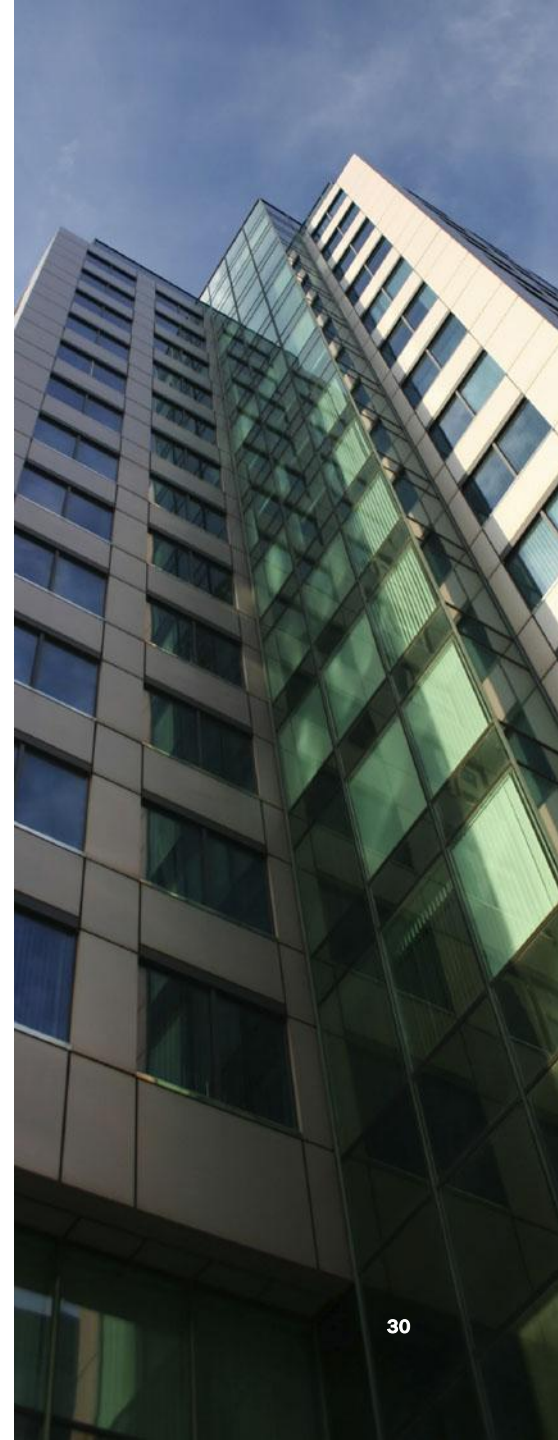
- U.S. Department of Energy, Non-Utility Green Power Supplier of the Year, 2007-2011
- Acterra, Environmental Enterprise Award - Small Company 2009
- Environmental Finance, #1 REC Trading Company, North America, 2010
- Ranked #49 on the 2011 Inc. 5000 List of America's Fastest Growing Energy Companies



Why Implement A GHG Reduction Plan?

Build Stakeholder Value

- Investors
 - Founders
 - Other current investors
- Employees
 - Improve recruitment and retention
- Customers
 - Demonstrate shared values
 - Whole Foods, Starbucks, prAna, Kettle Chips
 - Walk the Talk
 - Reduce, Renew, Balance



Setting a goal

Be Ambitious, but Realistic

- Reduce carbon emissions per employee by 5% by 2013, in comparison to base year of 2010
- Match all purchased electricity with Green-e Energy certified Renewable Energy Certificates
- Balance out Scope 1 and Scope 3 carbon emissions through the purchase of verified carbon offsets



Reduction Strategies

Minimize Computer, Monitor and other Appliance Electricity Usage

- Ensure products are energy efficient and Energy Star Certified
- Evaluating Smart Strips, Electricity Dashboard

Use Window Blinds

- Minimize heating and cooling

Select an Accessible Office Location

- Find offices with access to public transit

Minimize Travel GHG Emissions

- Subsidize 50% of employee public transit costs
- Recommend use of hybrid or fuel-efficient vehicles
 - 35 MPG or better

Use Green Web Hosting

- Select web host that uses 100% Renewable Energy

Challenges

Formalizing and communicating strategy

- Secure feedback from Finance, HR, other departments
- Distribute on Intranet

Securing information from landlords

- Sometimes difficult getting specific electricity and energy usage information

Finding New Reduction Opportunities

- Renting office space limits options

Lessons Learned

Executive Leadership is Essential

Emphasize Employee Communications

Partner with Your Landlord

Improve Measurement

Reduce, Renew and Balance

Sustainability is a Journey, not a Destination

Contact

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Lena Ohta

Sustainability Advisor



Lena Ohta, LEED AP, CRM, serves as a Sustainability Advisor at Healthy Buildings.

Lena has a comprehensive understanding of green buildings, corporate sustainability, greenhouse gas analysis, and indoor air quality. She develops greenhouse gas inventories and carbon reduction plans for commercial, municipal and federal clients throughout the country. She is a Certified Carbon Reduction Manager through the Association of Energy Engineers (AEE). Additionally, Lena currently manages several GreenPoint Rated and LEED® projects involving diverse rating systems for both residential and commercial sectors.



HEALTHY BUILDINGS CARBON REDUCTION PLAN

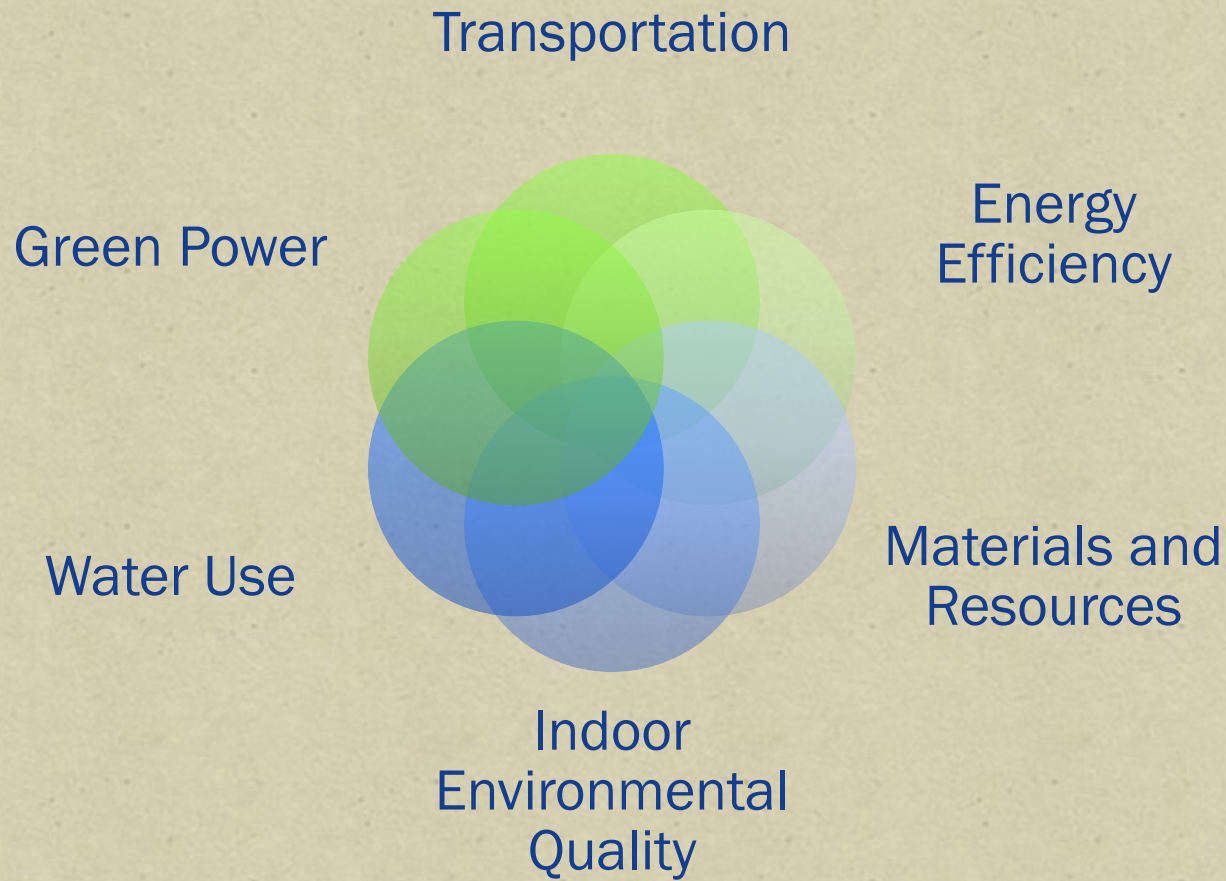
HEALTHY BUILDINGS

- Indoor Environmental Quality Testing
- Industrial Hygiene
- Water Quality Surveys
- Corporate Sustainability Reporting
- Green Building Consulting
- Energy Audits
- Commissioning
- Climate Solutions

WHY A CARBON REDUCTION PLAN?

- Enhance credibility – Walk the talk
- Share employee and client values
- Combat organic growth
- Heavily weighted in corporate sustainability certifications, such as B Corp Certification

ENHANCED OPERATIONS



PLAN OVERVIEW

- Transportation
 - Implement fuel efficient field vehicles
 - Use of public transportation for non-field staff has increased 25%
- Energy
 - Retrofits lighting
 - Install occupancy sensors and timers
 - Confirm that the HVAC is running correctly

PLAN OVERVIEW

- Certify new offices as LEED for Commercial Interiors Silver
- Environmentally Responsible Purchasing Plan
- Purchase electricity with Green-e Energy certified Renewable Energy Certificates
- Install low flow water fixtures
- Forecast growth metrics
- Set target reduction percentage

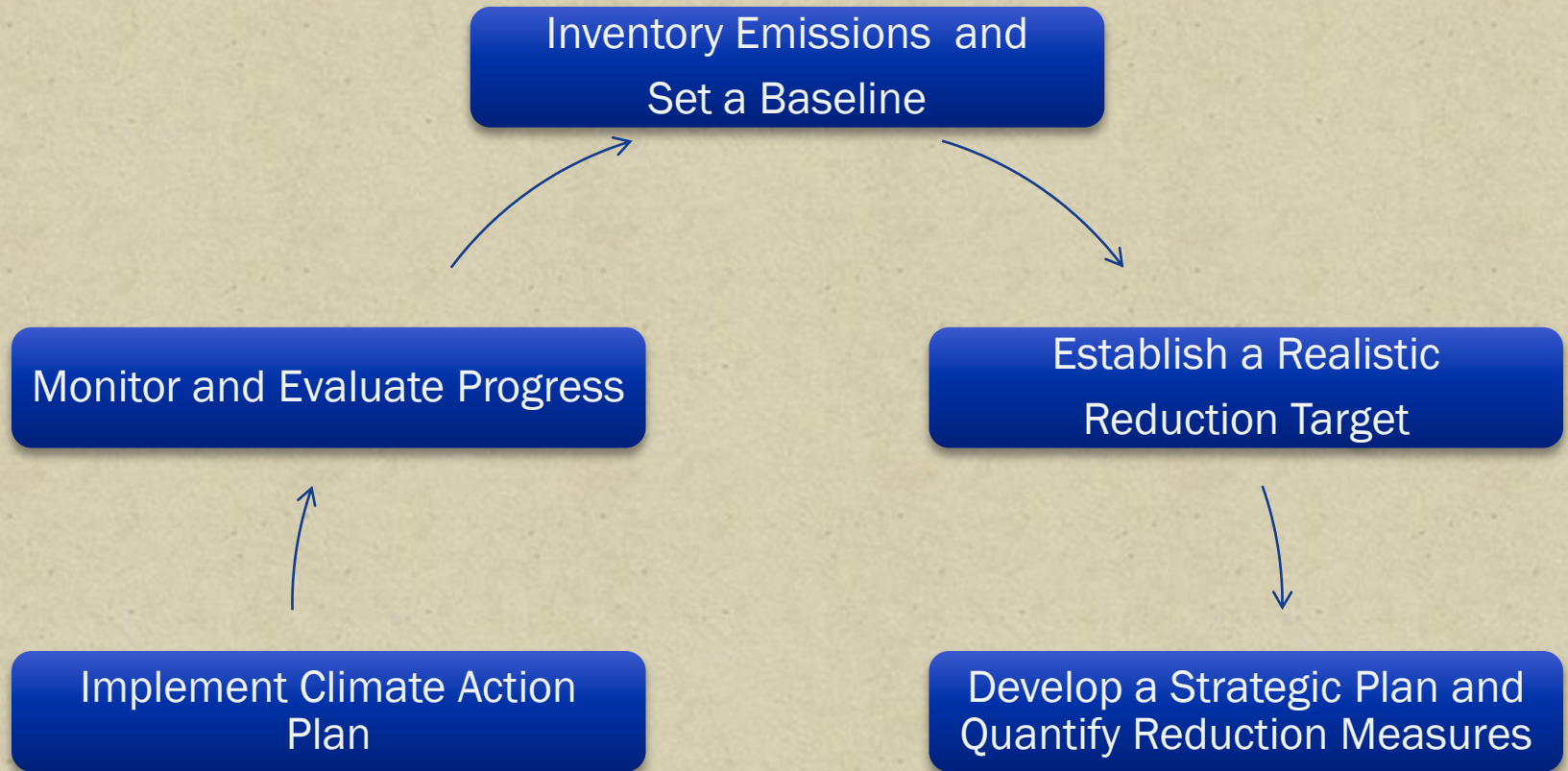
CHALLENGES

- “Making the business case for sustainability”
- Leased office space
- Revise accounting protocols for streamlined GHG inventorying

LESSONS LEARNED

- Executive support
- Run economic assessments
- Emphasize benefits to team
- Communication with property management
- Clear, organized data management is key
- Practice quality control
- Evolving program

CARBON REDUCTION PLAN



CLIENT LESSONS

- Manage goals and expectations
- Encourage corporate mandated policies
- Translate greenhouse gas inventory values to universal metrics
- Facilitate purchase of green power

CONTACT

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Questions



The Climate Registry

Upcoming Registry Webinars

- To Buy or Not to Buy: Identifying Quality Offsets, co-hosted with the Climate Action Reserve
 - January 19, 2012 at 10am PST
- Subnational Action on Climate Change, co-hosted with Regions20
 - February 23, 2012 at 10am PST



The Climate Registry

Thank you for your participation!

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Sources

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